

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
16 June 2005 (16.06.2005)

PCT

(10) International Publication Number
WO 2005/054576 A1

(51) International Patent Classification⁷: **D21H 21/34**

(21) International Application Number:
PCT/EP2004/013357

(22) International Filing Date:
25 November 2004 (25.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03027959.0 5 December 2003 (05.12.2003) EP

(71) Applicant (*for all designated States except US*): **CIBA SPEZIALITÄTENCHEMIE PFERSEE GMBH** [DE/DE]; Rehlinger Strasse 1, 86462 Langweid a. Lech (DE).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **DERMEIK, Salman** [DE/DE]; Max-Pechstein-Strasse 36, 86157 Augsburg (DE). **LEMMER, Karl-Heinz** [DE/DE]; Bärenstrasse 17, 86156 Augsburg (DE). **BRAUN, Reinhold** [DE/DE]; Leithau 15a, 86830 Schwabmünchen (DE).

(74) Common Representative: **CIBA SPEZIALITÄTEN-CHEMIE PFERSEE GMBH**; Patents, Trademarks & Support, 86462 Langweid a. Lech (DE).

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/054576 A1

(54) Title: PROCESS FOR THE FLAME-RETARDANT OF FIBER PRODUCTS

(57) Abstract: In the case of fiber products which contain from 20 to 100% by weight of cellulose fibers, flameretardant properties can be achieved by applying a polyethylenimine and a phosphonic acid to the fiber products or to precursors thereof. The precursors of the fiber products may be aqueous fiber suspensions which are further processed to give paper or fiberboards.